tile-M-34



Department of Energy Richland Operations Office

P.O. Box 550 Richland, Washington 99352 0050683

APR 2 4 1997

97-EAP-394

Mr. Tom Fitzsimmons, Director State of Washington Department of Ecology P.O. Box 47600 Olympia, Washington 98504-7600

Mr. Chuck Clarke Regional Administrator U.S. Environmental Protection Agency Region 10 1200 Sixth Avenue Seattle, Washington 98101

Dear Messrs. Fitzsimmons and Clarke:

COMPLETION OF THE NEGOTIATIONS FOR NEW HANFORD FACILITY AGREEMENT AND CONSENT ORDER (TRI-PARTY AGREEMENT) MILESTONES FOR THE COMPLETION OF STABILIZATION AT HANFORD'S K-BASINS

Enclosed for your signature is the tentative agreement to approve the completed change package for the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Negotiation of Commitments for the Completion of Stabilization at Hanford's K Basins. This package details the agreements reached in establishing the appropriate Tri-Party Agreement commitments for removal of fuel, sludge, and water from the K Basins and for the completion of stabilization of the K Basins.

The final package establishes a new Tri-Party Agreement major Milestone M-34-00A for the completion of the above noted activities up to and including transfer of the K-East and K-West Basins to the U.S. Department of Energy, Richland Operations Office, Environmental Restoration Project and initiation of the Surveillance and Maintenance phase. These commitments were developed in conjunction with members of your staff.

The original of the tentative agreement is being provided to the State of Washington Department of Ecology for signature. The agreement should then be forwarded to the U.S. Environmental Protection Agency for their signature.

RECEIVED

APR 28 1997



Messrs. Fitzsimmons and Clarke 97-EAP-394

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If you have any questions, you may contact me or your staff may contact Mr. James E. Rasmussen, Director, Environmental Assurance, Permits, and Policy Division on (509) 376-5441.

Sincerely,

John D. Wagone

Manager

EAP: FRM

Enclosure

cc w/encl:
Larry Arnold, FDH
Mary Lou Blazek, ODOE
Bill Burke, CTUIR
Russell Jim, YIN
Donna Powaukee, Nez Perce
Marilyn Reeves, HAB
Dan Silver, Ecology
Randy Smith, EPA
Doug Sherwood, EPA
Roger Stanley, Ecology
Nancy Williams, FDH
Tom Wintczak, BHI



TENTATIVE AGREEMENT ON

HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER NEGOTIATION FOR THE COMPLETION OF TRANSITION AT K EAST AND K WEST BASINS

In August of 1996, the U.S. Department of Energy, the U.S. Environmental Protection Agency, and the Washington State Department of Ecology, (the parties), signed an Agreement in Principle (AIP) to conduct negotiations for the purpose of establishing milestones for the K Basins. The AIP was followed by negotiations to establish M-34 milestones in the Hanford Federal Facility Agreement and Consent Order (Agreement) that replace the existing M-34 milestones. The milestones are for the removal of Basin(s) fuel, sludge and debris, water, and completion of Facility Transition Activities including transfer of the facilities to DOE's Environmental Restoration Project.

Pursuant to the parties Inter-Agency Management Integration Team (IAMIT) Resolution of Dispute, the parties have concluded K Basins negotiations and have reached tentative agreement. A summary and copy of this tentative agreement is attached.

This tentative agreement will be submitted to the public for review and comment for a 45 day period. Copies of this agreement will be available for review at the parties' public information repositories. Following the 45 day public comment period, the parties will make appropriate revisions before final approval. The specific public comment period dates will be coordinated to ensure Hanford Advisory Board opportunity for review and comment. Prior to final agreement, a response to comments document will be developed. The parties anticipate that final signatures will take place by August 31, 1997.

The parties further agree that to minimize additional delay in the event they fail to agree on any changes as the result of public comment, all unresolved matters shall be referred to the Agreement dispute resolution process beginning at the IAMIT level as described in the Agreement. The parties shall attempt to resolve the dispute(s) as provided for in Agreement paragraph(s) 30 and/or 59.

Signed this day of April 1997

Tom Fitzsimmons, Director State of Washington

Department of Ecology

Øohn D. Wagoner⊿Manager U.S. Department of Energy Richland Operations Office Chuck Clarke, Regional Administrator U.S. Environmental Protection Agency Region 10



RESOLUTION OF DISPUTE FOR MILESTONE M-34-00

In accordance with the requirements of the Agreement in Principle, dated August 16, 1996, the State of Washington Department of Ecology, the U.S. Environmental Protection Agency, and the U.S. Department of Energy (the Parties) have concluded negotiations on commitments for Resolution of Dispute of Milestone M-34-00. A tentative agreement has been reached and a package of changes to the Hanford Federal Facility Agreement and Consent Order (Agreement) has been developed and found mutually acceptable to the parties. These changes are attached to this Resolution of Dispute.

It is the parties' intent to submit this package of changes to the Agreement for a 45 day public comment period to run from approximately June 1, 1997, to July 15, 1997. Specific public comment period dates will be coordinated to ensure HAB opportunity for review and comment. Final approval of changes to the Agreement is expected to occur by August 31, 1997. Following successful resolution of any resulting public comments, a response to comments document will be issued.

Contingent upon final approval of the tentative agreement by the Signatories, and consideration and resolution of any resulting public comments, it is the parties' intent to approve these changes and incorporate them into the Agreement.

Michael A. Wilson

Manager, Nuclear Waste Programs

State of Washington Department of Ecology

Douglas R. Sherwood Date Hanford Project Manager

U.S. Environmental Protection Agency

Charles A. Hansen

Date

Assistant Manager, Waste Management

U.S. Department of Energy Richland Operations Office

Change Number	Federal Facility Agreement and Consent Order	Date	
· M-34-97-01	Change Control Form Do not use blue ink. Type or print using black ink.	April 16, 1997	
Originator Agreement Negotiati	· · · · · · · · · · · · · · · · · · ·		
Class of Change			
-			
	[] II - Executive Manager [] III - Project Manager		
	ederal Facility Agreement and Consent Order (Agreement) come n facility transition and the initiation of the Surveillance and Ma		
Description/Justification of Change In 1993, the U. S. Department of Energy (DOE) documented the loss of a substantial quantity of water from the 105 K East Basin where spent nuclear fuel is being stored. DOE operational monitoring data confirmed that the basin water released was contaminated with concentrations of radionuclides exceeding public health and environmental protection standards established by the U.S. Environmental Protection Agency (EPA) for hazardous substances as defined by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The DOE acknowledged through internal reporting and by notification of EPAs' National Response Center that CERCLA hazardous substances (radionuclides) had been released to the environment at the 105 K East Basin. These, and similar earlier releases from K East have served to increase DOE, EPA, and State of Washington Department of Ecology (Ecology) concerns regarding the integrity of these aging basins. (Continued on page 2)			
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Impact of Change These M-34-97-01 agreements are made in partial fulfillment of Land Disposal Restriction (LDR) treatment requirements of Agreement milestone M-26-00 (which constitutes an existing Agreement or Order for treatment of mixed waste for purposes of the Federal Facility Compliance Act of 1992 (FFCA)), and as companion documentation to LDR documents submitted by DOE pursuant to Agreement milestone M-26-00.			
Approval of this change request by the Parties establishes a new major milestone, and associated interim milestones and target dates governing the removal of spent fuel, sludge and debris, basin water, and completion of Facility Transition Activities including transfer of the K-Basins to DOEs' Environmental Restoration Program. On approval, Hanford site planning and budget development documents (e.g., Sitewide System Engineering control documents, Project Management Plans, and Multi Year Work Plans) will be modified accordingly.			
Affected Documents			
The <u>Hanford Federal Facility Agreement and Consent Order</u> , as amended, and Hanford Site internal planning and			
budget documents (e.g., Sitewide System Engineering control documents, Project Management Plans, and Multi Year Work Plans).			
Approvals			
	ApprovedDisapproved		
DOE	Date		
EPA	ApprovedDisapproved		
Ecology	Approved Disapproved		

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Description/Justification of Change (continued)

The release of CERCLA hazardous substances to the environment, concerns regarding basin age and integrity, and mounting concerns regarding the hazards posed by basin contents have resulted in an agreement between the parties that accelerated removal of K East and K West Basin contents (spent nuclear fuels, sludges and debris, and basin waters) is necessary. DOE, EPA, and Ecology (the Parties) have further agreed that use of a CERCLA "removal action" is warranted in that it affords the most expeditious regulatory vehicle for ensuring removal.

History and Basis of Agreement Negotiations:

In early 1993, the Parties conducted initial Agreement negotiations aimed at establishing an agreed upon technical path forward that would minimize and/or eliminate continued endangerment of public health and further contamination of the environment. These negotiations culminated in the establishment of initial Agreement milestones pertaining to Hanford's K-Basins'. These milestones assumed encapsulation of K East spent nuclear fuels and sludges, and subsequent placement of these fuels and sludges into the K West spent nuclear fuel storage basins. The Parties also agreed to an interim milestone requiring the reduction of the concentration of the radionuclide tritium in K East basin water. At that time, the parties agreed that tritium constituted the principal hazardous substance of concern in basin water and posed the greatest potential risk for further release to the environment and endangerment to public health. Milestones implementing this original technical path forward were agreed upon and established by the Parties in the Agreements' Fourth Amendment. Amendment Four was approved by the Parties in January 1994.

Subsequent to finalization of Agreement Amendment Four, additional information regarding the physical character of basin contents has served to increase safety, public health, and environmental concerns, and to underscore the need for action. As a result of increased knowledge and concerns, DOE proposed a new, safer, and more technically sound path based on the removal and management of all spent nuclear fuel, sludge and debris, and water in both the K East and K West Basins. A technical analysis of the options associated with selection of a revised technical path forward was documented in a National Environmental Policy Act, Environmental Impact Statement (NEPA EIS). In May of 1995, an EIS Record of Decision (ROD) was issued documenting the new technical path forward as the preferred alternative for the management of K-Basins spent nuclear fuels. As a result of this programmatic change in direction, the parties agreed to renegotiate the existing Agreement Milestone M-34-00 series. This commitment to renegotiate was documented in Agreement Change Control Form #M-34-95-02 (March 28, 1995).

This Agreement commitment required DOE to submit a signed change request by June 30, 1996, proposing specific dates for milestones covering the removal of spent nuclear fuel and sludge, and completion of stabilization/transition activities, and for transfer of Hanford's K East and K West Basins to DOEs' Environmental Restoration Program. DOEs' change request was also to serve as the basis for initiating associated negotiations.

On June 26, 1996, DOE submitted its signed change request to Ecology (M-34-96-02) proposing milestones and associated commitments, and requesting that the Parties initiate K Basins negotiations. Ecology disapproved the submitted change request in its particulars on July 12, 1996, but accepted it as a basis from which to begin negotiations to develop mutually acceptable K-Basins commitments. Other agreements between the Parties regarding these negotiations may be found at: (1) their August 16, 1996, Agreement In Principle; (2) DOEs' November 1, 1996, letter requesting temporary suspension of negotiations (J. D. Wagoner to M. Riveland and C. Clarke); and (3) a resulting Inter-Agency Management Integration Team (IAMIT), November 16, 1996, "Resolution of Dispute".

This (M-34-97-01) change request is a result of the Parties' negotiations. Assumptions utilized in reaching these agreements include the following:

¹ Unless otherwise noted, the term "K basins" is used here to denote both K East and K West

^{*} Or 60-Days after Completion of Negotiations

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Description/Justification of Change (continued)

- 1. An appropriate number of both enforceable major and interim milestones, and unenforceable target dates should be established so as to effectively drive each of the four phases of K East and K West Basin work, i.e., spent nuclear fuel, sludge and debris, basin water, and remaining basin transition activities.
- 2. DOEs' K East and K West Basins are hereby classified as "key facilities" subject to Agreement Section 8 (Facility Decommissioning Process).
- The Parties will employ a removal action under CERCLA to abate further releases, or threats of releases of hazardous substances from the basins; An Engineering Evaluation\Cost Analysis (EE/CA) followed by an Action Memorandum will document necessary removal action work to be completed at the K East and K West Basins. This K Basins EE/CA will be consistent with and constrained by these (M-34-97-01) milestones and agreements.
- 4. The K-Basins EE/CA will be developed by DOE in consultation with Ecology and EPA. All three agencies will approve the EE/CA prior to release for public comment.
- 5. The K-Basins EE/CA Action Memorandum will be approved and issued by the DOE, the EPA and Ecology.
- 6. Provided that DOE maintains compliance with the Action Memorandum, and the terms of this agreement, Ecology does not expect to call for submittal of a State of Washington Hazardous Waste Management Act (HWMA) Part B permit submittal for the management of the K East and K West Basins.

New (M-34-97-01) milestones and target dates (below) replace and delete the Agreements' out of date series, i.e., M-34-00, M-34-00-T02, M-34-00-T06, M-34-00-T08, and M-34-01. Deleted milestones and targets are as follows:

<u>Milestone</u>	<u>Description</u>	<u>Due Date</u>
M-34-00	Complete actions specified by agreed interim milestones related to remediation of the K East Basins.	TBD
M-34-00-T02	Initiate K East Basin Fuel Encapsulation.	TBD
M-34-00-T06	Initiate K East Basin Sludge Encapsulation.	11/30/96*
M-34-00-T07	Complete Encapsulation of the Fuel and Sludge within K East Basin.	12/31/98*
M-34-00-T08	Remove all fuel and sludge from both K East and K West Basins in an Encapsulated form.	12/31/02*

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Description/Justification of Change (continued)

M-34-01

Contaminated K East Basin water will be removed, replaced, or treated. The timing of this action must be coordinated with encapsulation and the cleaning of the residual contamination in the basin and (as noted below) the alternative selection is dependant on the feasibility of moving encapsulated K East Basin fuel and sludge to the K West Basin. The contaminated water will be dispositioned in accordance with reasonable available Hanford Site treatment and/or disposal processes and methods, available at the time of this action. Unless a better option becomes available, the water will be trucked to C-018 for disposal.

If the K East fuel and sludge, once encapsulated, can be moved to the K West Basin (determined through a September 1994 Engineering study target date) the removal and disposal of the contaminated water shall be completed by September 2000. This date is an eighteen month action, starting in March 1999, three months after fuel and sludge encapsulation is completed. If the transfer of encapsulated K East Basin fuel and sludge to K West Basin is infeasible, contaminated K East Basin water will be replaced by fresh water, starting in September, 1996 at a rate of two million gallons/year and will continue until such time that the tritium concentration in the basin is decreased and is maintained at or below 300,000 pCi/L (the goal is to reduce the tritium concentration in the basin such that resulting groundwater tritium concentration meet drinking water concentration standards, recognizing a lag between basin and groundwater concentrations.

The new M-34-00A major milestone series established by this M-34-97-01 agreement is as follows:

Milestone

Description

Due Date

M-34-00A

Complete K East and K West Basin Facility Transition Phase and Initiate the Surveillance and Maintenance Phase.

12/31/05

Completion of activities under this major milestone includes the completion of removal of spent fuels, sludge and debris, and water, and all other facility transition phase activities up to and including transfer of the K East and K West Basins to DOEs' Environmental Restoration Program and initiation of the Surveillance and Maintenance phase.

TBD

M.	34.	.03	

Submit completed Engineering Evaluation/Cost Analysis (EE/CA) to Ecology and EPA for approval. This EE/CA will analyze alternatives to remove K East and K West Basin hazardous substances in a manner fully consistent with these (M-34-97-01) milestones and commitments.

6/30/97

The K Basins' EE/CA will be developed following the standard format for such documents and in accordance with associated regulatory requirements of the National Contingency Plan. The K Basins' EE/CA shall contain detailed schedules for initiating and completing activities required for the removal of hazardous substances from K Basins spent fuels, sludge and debris, and water; as required by milestones and target dates M-34-04-T01 through M-34-20.

The scope of the K Basins EE/CA and removal action does not include subsequent processing, treatment, and management of these substances. Such processing, treatment, and management will be conducted in accordance with applicable requirements.

Sludge and Debris

M-34-04-T01 Issue Revision B of the Preliminary Safety Assessment for the transfer of K East Basins sludge.

5/31/97

M-34-05 Submit DOE approved annual report on quantities, character, and management (e.g., segregation and management subsequent to removal) of K Basins debris to Ecology and EPA. Final report of this series shall be the one occurring one year after SNF Project Completion.

Annually beginning 5/31/97

M-34-06-T01 Initiate K West canister cleaning operations.

10/31/98

This activity will consist of removal of all contents from each canister and processing of the canisters through the radioactive decontamination apparatus.

M-34-07-T01

Complete final safety basis for the transfer of K Basins sludge.

1/31/00

Provide to Ecology and EPA the DOE approved: 1) K Basin Safety Analysis Report (SAR) update; 2) storage facility SAR or SAR modification; and, 3) Safety Analysis Report for Packaging (SARP) authorizing the transfer of K Basins sludge.

M-34-08

Initiate full scale K East Basins sludge removal.

9/30/00

This milestone will be met when DOE completes and approves K East sludge removal definitive design documents, all associated construction, and readiness assessments.

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M-34-09-T01	Complete K Basins debris removal.	2/28/01
	This target date will be met when DOE completes K East and K West Basin debris removal in a manner meeting DOE approved transition criteria.	
M-34-10	Complete sludge removal from K Basins.	8/31/01
	This milestone will be met when DOE completes K East and K West Basin floor, pit, and canister sludge removal in a manner meeting DOE approved transition criteria.	
·	SNF Project Turnover Criteria	
M-34-11-T01	Issue DOE approved K Basins (SNF Project) Transition Turnover Criteria document to Ecology and EPA.	12/31/97
	Spent Fuel	
M-34-12-T01	Complete Spent Fuel Operational Readiness Review.	5/31/98
	This target date will be met when the Spent Fuel Operational Readiness Review (ORR) is successfully completed and startup approval is granted by the Manager, RL. The objective of the ORR is to demonstrate that it is safe to start, or restart, applicable facilities and processes.	
M-34-13-T01	Complete construction of K West Basin integrated water treatment system.	12/31/97
	This target date will be met when the K West Basin integrated water treatment system has been constructed, installed, and acceptance test(s) have been completed in accordance with the acceptance test plan.	
M-34-14-T01	Complete construction of K East Basin integrated water treatment system.	12/31/98
·	This target date will be met when the K East Basin integrated water treatment system has been constructed, installed, and acceptance test(s) have been completed in accordance with the acceptance test plan.	

M-34-15-T01	Initiate Removal of K West Basin Spent Fuel.	5/31/98
	Removal of Spent Fuel will begin in the K West Basin. In order for this target date to be met, the Cold Vacuum Drying (CVD) Facility and Canister Storage Building (CSB) will be ready to receive spent fuel, the spent fuel transport system will be operable and the K West Basin spent fuel retrieval system will begin retrieving, cleaning, packaging and removing spent fuel.	
M-34-16	Initiate Removal of K East Basin Spent Fuel	2/28/99
	This interim milestone will be met when the K East Basin spent fuel retrieval system begins retrieving, cleaning, packaging and removing spent fuel for transport to the Cold Vacuum Drying Facility.	
M-34-17-T01	Complete construction and installation of K East and K West Basins Spent Fuel Retrieval Systems.	9/30/98
	This target date will be met when both the K East and the K West Basins spent fuel retrieval systems have been constructed, and installed, as indicated by approval of the Acceptance of Construction Form by the SNF Project.	
M-34-18	Complete Removal of K East and K West Basins Spent Fuel.	7/31/00
	This milestone will be met when all spent fuel stored in DOEs' K East and K West Basins has been removed in a manner meeting criteria established within the SNF project transition criteria document.	
	Basin Water Remediation	
M-34-19	Initiate removal, replacement, or treatment of contaminated K East Basin waters such that the tritium concentration in the basin is decreased and is maintained at or below 300,000 pCi/L.	7/31/00

SNF Project Completion

M-34-20	Complete: 1) removal, replacement, or treatment of contaminated K East Basin waters such that the tritium concentration in the basin is decreased and is maintained at or below 300,000 pCi/L; and, 2) transfer of K East and K West Basins to DOEs' Facility Transition Program in accordance with DOE approved (SNF project) Transition Turnover Criteria document (See M-34-11-T01).	9/30/01
	K East and K West Basins Facility Transition Milestones	
M-34-21	Submit a draft Project Management Plan for K East and K West Basins prepared in a manner consistent with Agreement Action Plan Section 8.0.	6/30/01
M-34-22	Submit DOE approved K East and K West Basins End Point Criteria to Ecology for approval in part consistent with Agreement Action Plan Section 8.0. The end point criteria document will become part of the Project Management Plan.	6/30/01
M-34-23	Submit DOE approved K East and K West Basins Pre-closure Work Plan(s) to Ecology for approval. The Pre-closure Work Plan(s) will include the proposed end point criteria and Surveillance and Maintenance (S&M) Plan(s) and will identify any hazardous substances/dangerous wastes proposed to remain in place.	12/31/01
M-34-24	Submit DOE approved K East and K West Basins Surveillance and Maintenance Plan to Ecology for approval in part consistent with Agreement Action Plan Section 8.0.	6/30/02
M-34-25	Submit proposed final K East and K West Basins Project Management Plan(s) to Ecology for approval in part consistent with Agreement Action Plan Section 8.0.	6/30/02
	K West Basin Transition	
M-34-26	Complete K West Basin deactivation.	12/31/05
M-34-27	Initiate full scale K West Basin water removal.	3/31/03
	The start date for the removal of water from the K West Basin will be six months following approval by Ecology of the 105 K West End Point Criteria document.	

M-34-28	Complete K West Basin water removal.	3/31/04
M-34-29	Complete K West Basin stabilization.	3/31/05
K East Basin Transition		
M-34-30	Complete K East Basin deactivation.	12/31/05
M-34-31	Initiate full scale K East Basin water removal. The start date for the removal of water from the K East Basin will be six	9/30/03
	months following approval by Ecology of the 105 K East End Point Criteria document.	
M-34-32	Complete K East Basin water removal.	4/30/05
M-34-33	Complete K East Basin stabilization.	9/30/05
M-34-34	Complete transfer of K East and K West Basins to DOEs' Environmental Restoration Program.	12/31/05

M-34-97.01B

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